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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/486,625	09/13/2000	Velpandi Ayyavoo	UPAP-0287	8820

7590

08/26/2003

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EXAMINER

FOLEY, SHANON A

ART UNIT

PAPER NUMBER

1648

DATE MAILED: 08/26/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/486,625

Applicant(s)

AYYAVOO ET AL.

Examiner

Shanon Foley

Art Unit

1648

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Election/Restrictions*

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Groups 1-20, claim(s) 1, 2 and 6, drawn to an isolated, attenuated, non-functional *vif* protein. Each group corresponds to SEQ ID NOs: 4-23, respectively, recited in claim 2.

Groups 21-40, claim(s) 3-5, 7-11 and 18-20, drawn to an isolated nucleic acid encoding an attenuated, non-functional *vif* protein. Each group corresponds to specific nucleic acid sequences corresponding to SEQ ID NOs: 27-46 in claim 5. If applicant elects one of these groups, applicant must also identify the corresponding amino acid SEQ ID NO. encoded by the elected nucleic acid sequence.

Groups 41-60, claim(s) 12 and 13, drawn to an antibody. Each group corresponds to the corresponding amino acid SEQ ID NOs: 4-23, respectively, recited in claim 13, which each antibody is directed against.

Group 61, claim(s) 14-17, drawn to a method of immunizing a mammal against a virus by administering a nucleotide sequence encoding a non-functional *vif* protein.

The inventions listed as Groups 1-61 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The special technical feature of group 1 is defined as an isolated, attenuated, non-functional *vif* protein in claim 1. Ma et al. (Journal of Virology. 1994; 68 (3): 1714-1720) teach isolated, non-functional *vif* proteins, see the abstract, "Construction of HIV-1 clones expressing mutated Vif" bridging pages 1714-1715, "Immunoblot analysis of viral proteins" bridging pages 1715-1716, the paragraph bridging pages 1717-1718 and Figures 1 and 5. Therefore, the special technical feature defining the invention lacks novelty in the art. Any subsequent group that does not share the special technical feature with group 1 lacks unity of invention.

The special technical features of groups 2-20 are drawn to *vif* proteins comprising specific SEQ ID NOs. These groups lack unity of invention with group 1 because each of the isolated proteins

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possess structural features that do not share the defining features with the protein of group 1. None of the proteins of groups 2-20 share the same specific sequence defining each group. Therefore, each of groups 2-20 lack unity of invention with one another and each are drawn to patentably distinct products, 2-20.

The special technical features of groups 21-40 are drawn to nucleic acids encoding specific *vif* proteins comprising specific SEQ ID NOs. These groups lack unity of invention with group 1 because each of the nucleic acids possess structural and functional features that do not share the defining features with the protein of group 1. None of the nucleic acids of groups 21-40 share the same specific sequence defining each group. Therefore, each of groups 21-40 lack unity of invention with one another and each are drawn to patentably distinct products, 21-40.

The special technical features of groups 41-60 are drawn to antibodies against specific *vif* proteins. These groups lack unity of invention with group 1 because each of the antibodies possess structural and functional features that do not share the defining features with the protein of group 1. None of the antibodies of groups 41-60 share the same specificity for each of the distinct *vif* proteins. Therefore, each of groups 41-60 lack unity of invention with one another and each are drawn to patentably distinct products, 41-60.

The special technical feature of group 61 is drawn to a first method of using any of the products 21-40. This group lacks unity of invention with group 1 because the method requires products that do not share structural or functional features defining the special technical feature of group 1.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shanon Foley whose telephone number is (703) 308-3983. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Housel can be reached on (703) 308-4027. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

  
Shanon Foley